

Title (en)

BEARING STRUCTURE FOR MULTI-LINK-TYPE PISTON CRANK MECHANISM FOR INTERNAL COMBUSTION ENGINES

Title (de)

LAGERSTRUKTUR FÜR EINEN MEHRVERBINDUNGS-KOLBEN-/KURBELMECHANISMUS FÜR BRENNKRAFTMASCHINEN

Title (fr)

STRUCTURE DE PALIER POUR MÉCANISME DE VILEBREQUIN ET DE PISTON DU TYPE À LIAISONS MULTIPLES POUR MOTEURS À COMBUSTION INTERNE

Publication

EP 3012434 A4 20160518 (EN)

Application

EP 14814520 A 20140424

Priority

- JP 2013129506 A 20130620
- JP 2014061558 W 20140424

Abstract (en)

[origin: EP3012434A1] A crankshaft bearing part (11) has a pair of main bearing metals (41), and lubricating oil is guided from an oil gallery to an inner circumferential oil groove (43) through an in-block oil passage (33) and a first oil hole (42). Some of the lubricating oil is supplied to a control shaft bearing part (17) via a second oil hole (44) and an in-cap oil passage (34). Lubricating oil is guided from a third oil hole (46) in a pair of control shaft bearing metals (45) to an inner circumferential oil groove (47). The oil groove (43) in the crankshaft bearing part (11) functions also as an oil passage for supplying lubricating oil to the control shaft bearing part (17), thereby achieving a simple configuration.

IPC 8 full level

F02B 75/04 (2006.01); **F01M 1/06** (2006.01); **F02B 75/32** (2006.01)

CPC (source: EP RU US)

F01M 11/02 (2013.01 - EP US); **F02B 41/04** (2013.01 - EP US); **F02B 75/045** (2013.01 - EP US); **F02B 75/32** (2013.01 - EP US); **F16C 9/00** (2013.01 - EP US); **F16C 33/1045** (2013.01 - EP US); **F01M 11/02** (2013.01 - RU); **F01M 2011/026** (2013.01 - EP US); **F02B 41/04** (2013.01 - RU); **F02B 75/04** (2013.01 - US); **F02B 75/044** (2013.01 - US); **F02B 75/045** (2013.01 - RU); **F02B 75/048** (2013.01 - US); **F02B 75/32** (2013.01 - RU); **F02D 15/02** (2013.01 - US); **F02F 7/0053** (2013.01 - EP US); **F16C 9/00** (2013.01 - RU); **F16C 33/1045** (2013.01 - RU)

Citation (search report)

- [Y] JP S63179114 A 19880723 - MAZDA MOTOR
- [YD] JP 2004116434 A 20040415 - NISSAN MOTOR
- [A] US 2012210972 A1 20120823 - KASAI AKIHITO [JP], et al
- See also references of WO 2014203618A1

Cited by

EP3181925A4; US9879724B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3012434 A1 20160427; **EP 3012434 A4 20160518**; **EP 3012434 B1 20171129**; BR 112015031557 A2 20210525; BR 112015031557 B1 20211130; CN 105324559 A 20160210; CN 105324559 B 20170908; JP 5983877 B2 20160906; JP WO2014203618 A1 20170223; MX 2015016932 A 20160404; MX 353818 B 20180131; RU 2624081 C1 20170630; US 2016138467 A1 20160519; US 9951686 B2 20180424; WO 2014203618 A1 20141224

DOCDB simple family (application)

EP 14814520 A 20140424; BR 112015031557 A 20140424; CN 201480034348 A 20140424; JP 2014061558 W 20140424; JP 2015522631 A 20140424; MX 2015016932 A 20140424; RU 2016101331 A 20140424; US 201414899751 A 20140424